

SEQUENCE LISTING

<110> Yu, De-Chao
Li, Yuanhao
Henderson, Daniel R.

<120> CELL-SPECIFIC ADENOVIRUS VECTORS
COMPRISING AN INTERNAL RIBOSOME ENTRY SITE

<130> 348022001700

<140> 09/814,351

<141> 2001-03-21

<150> 60/192,156

<151> 2000-03-24

<160> 35

<170> FastSEQ for Windows Version 4.0

<210> 1

<211> 519

<212> DNA

<213> Artificial Sequence

<220>

<223> IRES from encephelomyocarditis virus (EMCV)

<400> 1	
gacgtcgact aattccggtt attttcacc atattgccgt cttttggcaa tgtgagggcc	60
cggaaacctg gccctgtctt cttgacgagc attcctaggg gtctttcccc tctcgccaaa	120
ggaatgcaag gtctgttgaa tgcgtgaag gaagcagttc ctctggaagc ttcttgaaga	180
caaacaacgt ctgtagcgac cctttgcagg cagcggaacc cccacctgg cgacaggtgc	240
ctctgcggcc aaaagccacg tgtataagat acacctgcaa aggcggcaca accccagtgc	300
cacgttgtga gttggatagt tgtggaaaga gtcaaattggc tctcctcaag cgtattcaac	360
aaggggctga aggatgcca gaaggtaccc cattgtatgg gatctgatct ggggcctcgg	420
tgcacatgct ttacatgtgt ttagtcgagg ttaaaaaacg tctaggcccc ccgaaccacg	480
gggacgtggt tttcctttga aaaacacgat gtcgacgtc	519

<210> 2

<211> 188

<212> DNA

<213> Artificial Sequence

<220>

<223> IRES from vascular endothelial growth factor
(VEGF)

<400> 2	
acgtagtcga cagcgagag gcttggggca gccgagcggc agccaggccc cggcccgggc	60
ctcggttcca gaagggagag gagcccgcca aggcgcgcaa gagagcgggc tgcctcgag	120
tccgagccgg agagggagcg cgagccgcgc cggcccggga cggcctccga aaccatggtc	180
gacacgta	188

<210> 3
 <211> 341
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> 5' UTR region of HCV

<400> 3	
gccagccccc tgatgggggc gacactccgc catgaatcac tcccctgtga ggaactactg	60
tcttcacgca gaaagcgtct agccatggcg ttagtatgag tgctgtgcag cctccaggac	120
ccccctccc gggagagcca tagtggtctg cggaaccggg gagtacaccg gaattgccag	180
gacgaccggg tcctttcttg gattaaccg ctcaatgcct ggagatttgg gcgtgcccc	240
gcaagactgc tagccgagta gtgttgggtc gcgaaaggcc ttgtggtact gcctgatagg	300
gtgcttgcca gtgccccggg aggtctcgta gaccgtgcac c	341

<210> 4
 <211> 595
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> 5' UTR region of BiP

<400> 4	
cccgggggtca ctctgctgg acctaactccg accccctagg ccgggagtga aggcgggact	60
tgtgcgggtta ccagcggaat tgccctgggg tcagaagtgc caggagagat agacagctgc	120
tgaaccaatg ggaccagcgg atggggcgga tgttatctac cattggtgaa cgtagaaac	180
gaatagcagc caatgaatca gctggggggg cggagcagtg acgtttattg cggagggggc	240
cgcttcgaat cggcgggcgg cagcttggtg gcctggggcca atgaacggcc tccaacgagc	300
agggccttca ccaatcgggc gcctccacga cggggctggg ggagggtata taagccgagt	360
agggcagcgt gaggtcgacg ccggccaaga cagcacagac agattgacct attggggtgt	420
ttcgcgagtg tgagagggaa gcgcccgggc ctgtatttct agacctgcc ttcgcctggt	480
tcgtggcgcc ttgtgacccc gggccctgc cgctgcaag tcgaaattgc gctgtgctcc	540
tgtgctacgg cctgtggctg gactgcctgc tgctgccaa ctggctggca agatg	595

<210> 5
 <211> 575
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> 5' UTR of PDGF

<400> 5	
gtttgcacct ctccctgccc ggggtgctcga gctgccgttg caaagccaac tttggaaaaa	60
gttttttggg ggagacttgg gccttgaggt gcccagctcc gcgctttccg attttggggg	120
ctttccagaa aatgttgcaa aaaagctaag ccggcgggca gaggaaaacg cctgtagccg	180
gcgagtgaag acgaaccatc gactgccgtg ttctttttcc tcttgagggt tggagtcccc	240
tgggcgcccc cacacccta gacgcctcgg ctggttcgag acgcagcccc ccggccgtgg	300
atgctgcaat cgggctcggg atccgcccag gtagccggcc tcggacccag gtccctgcgc	360
caggtccctcc cctgcccccc agcgacggag ccggggccgg gggcgggcgg gccgggggca	420
tgcggttgag ccgcggctgc agaggcctga gcgcctgatc gccgcggacc tgagccgagc	480
ccacccccct cccagcccc ccaccctggc cggggggcg gcgcgctcga tctacgcgtc	540
cggggccccc cggggccggg cccggagtcg gcatg	575

<210> 6

<211> 2240
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Human uroplakin II 5' flanking region

<400> 6
 tcgataggta cccactatag ggcacgcgtg gtcgacggcc cgggctgggc tggcaacttc 60
 aagtgtgggc ctttcagacc ggcacatca gtgttacggg gaagtcacta ggaatgcaga 120
 attgattgag cacggtggct cacacctgta atcccaacac tctgggaggc caaggcaggc 180
 ggatcacttg tggtcaggag tttgagacca gcctggccaa catggtgaaa cctcatctct 240
 actaaaaata caaaaattag ctgggaatgg tggcacatgc ctataatccc agttactcag 300
 gaggtcaggg caggagaatc atttgaacct gggaggcaga ggttgccagt agccgagatc 360
 acgccactgc actccagcct ggggtgacaca gcgagactct gtctcaaaaa aaaaaaatg 420
 cagaatttca ggcttcaccc cagacccact gcatgactgc atgagaagct gcatcttaac 480
 aagatccctg gtaattcata cgcatattaa atttggagat gcaactggcg aagaccctcc 540
 tactctctgc ttaggccatc gaggctcttc tttactgtca ttctccactc accccaaact 600
 ttgagcctac ccttcccacc ttggcggtaa ggacacaacc tccctcacat tcctaccagg 660
 accctaagct tccctgggac tgaggaagat agaatagttc gtggagcaaa cagatatata 720
 gcaacagtct ctgtacagct ctcaggcttc tggaagttct acagcctctc ccgacaaagt 780
 attccacttt ccacaagtaa ctctatgtgt ctgagtctca gtttccactt ttctctctct 840
 ctctctctct caactttctg agacagagtt tcaactagtc gccagggctg gaggtcaggg 900
 gcacaatctc ggctcactgc aacctccacc tccctgggtc aagtgtttct cctgtctcag 960
 cctcccgagt agctgggatt acaggcacac accaccgct tagtttttgt atttttgta 1020
 gagatgggtg ttcgccatat tggccaggct gatctcgaac tcctgacctc aggtgatccg 1080
 cccacctcgg cctcccaaag tgctgggatt acaggcatga gccaccacgc ccggctgatc 1140
 tctttctctat tttaatagag atcaaaactc ctgtgttgcc taggctgggc ttgaactcct 1200
 ggccctcagat gatcctccca ccttggcctc ccaaagtgtt gagattacag gcatgagcca 1260
 ctgtgcctgg cctcagttct actacaaaag gaagccagta ccagctacca cccagggtgg 1320
 ctgtagggct acaatggagc acacagaacc cctaccagc gcccggaaga agccccgact 1380
 cctctcccct ccctctgccc agaactcctc cgcttctttc tgatgtagcc cagggccgga 1440
 ggaggcagtc aggggaagtc tgtctctttt tcatgttatc ttacgaggtc tctttctctc 1500
 attctcagtc caacaaatgg ttgctgcccc aggctgactg tgcccacccc caacccctgc 1560
 tggccagggt caatgtctgt ctctctgggc tctccagaag tcttccatgg ccaccttctg 1620
 cccacacctc cagaggaatc tgaaaccgca tgtgtcctt ggccccaca gccctgcct 1680
 ctcccagagc agcagtacct aagcctcagt gcactccaag aattgaaacc ctcagtctgc 1740
 tgccctccc caccagaatg tttctctccc attcttacc actcaaggcc ctttcagtag 1800
 ccccttggag tattctcttc ctacatatca gggcaacttc caaactcact acccttctga 1860
 ggggtggggg aaagaccccc accacatcgg gggagcagtc ctccaaggac tggccagtct 1920
 ccagatgccc gtgcacacag gaacactgcc ttatgcagg gagtcccaga agaaggggtg 1980
 atttctttcc ccaccttagt tacaccatca agaccagcc agggcatccc cctcctggc 2040
 ctgagggccca gctccccatc ctgaaaaacc tgtctgctct cccacccctt ttgaggctat 2100
 agggcccaag gggcagggtg gactggattc cctccagcc cctcccgccc ccaggacaaa 2160
 atcagccacc ccaggggcag ggctcactt gcctcaggaa cccagcctg ccagcaccta 2220
 ttcacactcc cagcccagca 2240

<210> 7
 <211> 3592
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Mouse uroplakin II 5' flanking region

<400> 7
 ctcgaggatc tcggccctct ttctgcatcc ttgtcctaaa tcattttcat atcttgctag 60

acctcagttt	gagagaaacg	aaccttctca	ttttcaagtt	gaaaaaaaaa	agaggttcaa	120
agtggctcac	tcaaaagtac	aagccaacac	tcaccactac	gagtacaatg	gccaccatta	180
gtgctggcat	gccccaggag	acaggcatgc	atattattct	agatgactgg	gaggcagagg	240
ggtggcctag	tgaggtcaga	ctgtggacag	atcaggcaga	tgtgggttct	gatcccaatt	300
cctcaggccg	cagaactact	gtggttcaag	aaggggacaa	aaggactgca	gtccggaaca	360
ggaggtccat	ttgagagctg	actgagcaga	agaggaaagt	gaagaacttc	tggggcaaga	420
gcttacccta	ctttacagct	ttgttgtctt	ctttactcca	ggggcgtccc	tgggtactcag	480
taaatgtctg	ttggcttgag	gaacatatgt	gtaaggagga	aggagagggg	acttgagggg	540
gttaagactc	aagaatcaat	caaggagagg	acagcagaga	agacagggtt	tgggagagag	600
actccagaca	ttggccctgg	ttcccttctt	ggccactgtg	aaacctcca	gaggaactga	660
gtgctgtggc	tttaaatgat	ctcagcactg	tcagtgaagc	gctctgtctc	aagagttatc	720
ctcttgctcc	tgtgcccggg	cctccccctc	ctctcagctc	ccaaacctct	ctcagccact	780
gtgatggcat	aattagatgc	gagagctcag	accgtcaggt	ctgctccagg	aaccacccat	840
tttccccaac	cccagagaaa	ggtcctagt	gaaaagtggg	ggccactgaa	gggctgatgg	900
ggttctgtcc	tttcccccat	gctgggtgga	cttaaagtct	gcgatgtgtg	tagggggtag	960
aagacaacag	aacctggggg	ctccggctgg	gagcaggagg	aactctcacc	agacgatctc	1020
caaatttact	gtgcaatgga	cgatcaggaa	actggttcag	atgtagcttc	tgatacagtg	1080
ggtctgaggt	aaaaccgaa	acttaatttc	tttcaaaaat	ttaaagtgtc	atattattatt	1140
ttatatgtgt	gcccataatg	gtgccacagt	gtctatgtgg	aggtcagagg	gcaagttgtg	1200
ggcattggct	ctctcctttc	ataatgtggc	ttctggggac	caaaatgtca	ggcatggtgg	1260
caagagcttt	tacctgttga	gccatctcat	ggtttcgtaa	aacttcctat	gacgcttaca	1320
ggtaacgcag	agacacagac	tcacatttgg	agtttagcaga	tgctgtattg	gtgtaaacac	1380
tcatacacag	acacacacac	atactcatac	acacacacac	acacttatca	catgcacaca	1440
catactcgta	tacacacaga	cacacacaca	tgcactctca	cattcacata	ttcacacaca	1500
tccacacaca	cactcatcca	cacacacaga	cacacatact	catccacaca	cacacacaca	1560
catactcata	cacacacaca	gacacacata	ctcacacaca	cacacagaca	cacacatata	1620
atcacacata	cacagacaca	ctcacatg	tgcacacaca	cactcatcca	cacacacaca	1680
ctcacacaca	cacacactca	tacacacaca	cactcataca	cacacacacg	aggtttttct	1740
caggctgcct	ttgggtggag	actggaactg	atctctgttt	ttcagctcct	tggctttttg	1800
tccctttaga	tgagatctcc	tcctcacttt	acacacagaa	agatcacaca	cgagggagaa	1860
ctggcgggtg	ggaagagggc	tacacggtag	ggtgtcaggg	tcaggagatc	ttcctggcaa	1920
gtctcaaacc	tccacatagc	acagtgttta	cgtgaggatt	taggaggaat	caggaagagg	1980
attggtttac	tgcagagcag	accatatagg	tccactccta	agccccattt	gaaattagaa	2040
gtgagacagt	gtgggataaa	aagagcagat	ctctggctcac	attttttaaag	ggatatgagg	2100
gtcctgtgcc	tttaagcctt	cccatctccc	tccaatcccc	cctcaccttc	cccaccctaa	2160
ccctccccag	gtttctggag	gagcagagtt	gcgtcttctc	cctgccctgc	cgagctgctc	2220
actggctgct	ctagaggctg	tgctttgctg	tctccatgga	aaccattagt	tgctaagcaa	2280
ctggagcatc	atctgtgctg	agctcaggtc	ctatcgagtt	cacctagctg	agacaccac	2340
gccccgcag	ccactttgca	gtgacaagcc	tgagtctcag	gttctgcatc	tataaaaacg	2400
agtagccttt	caggagggca	tgcagagccc	cctggccagc	gtctagagga	gaggtgactg	2460
agtggggcca	tgtcactcgt	ccatggctgg	agaacctcca	tcagtctccc	agttagcctg	2520
gggcaggaga	gaaccagagg	agctgtggct	gctgattgga	tgatttacgt	acccaatctg	2580
ttgtcccagg	catcgaacct	cagagcgacc	tgcacacatg	ccaccgctgc	cccgccctcc	2640
acctcctctg	ctcctggtta	caggattggt	ttgtcttgaa	gggttttgtt	gttgctactt	2700
tttgctttgt	ttttcttttt	ttaacataag	gtttctctgt	gtagccctag	ctgtcctgga	2760
actcactctg	tagaccaggc	tggcctcaaa	ctcagaaatc	caccttcctc	ccaagtgtg	2820
ggattaaagg	cattcgcacc	atcgcccagc	ccccggctct	gtttcctaag	gttttcctgc	2880
tttactcgct	acccgttgca	caaccgcttg	ctgtccaagt	ctgtttgtat	ctactccacc	2940
gcccactagc	cttgctggac	tggacctacg	tttacctgga	agccttcact	aacttccttt	3000
gtctccacct	tctggagaaa	tctgaaggct	cacactgata	ccctccgctt	ctcccagagt	3060
cgcagtttct	taggcctcag	ttaaatacca	gaattggatc	tcaggctctg	ctatccccac	3120
cctacctaac	caacccccct	ctctcccctc	cttactagcc	aaagcccttt	caacccttgg	3180
ggcttttctt	acacctacac	accagggcaa	ttttagaact	catggctctc	ctagaaaacg	3240
cctacctcct	tggagactga	ccctctacag	tccaggaggc	agacactcag	acagaggaac	3300
tctgtccttc	agtcgcgggg	gttccagaaa	gagccatact	cccctgcaga	gctaactaag	3360
ctgccaggac	ccagccagag	catccccctt	tagccgaggg	ccagctcccc	agaatgaaaa	3420
acctgtctgg	ggccccctcc	tgaggctaca	gtcgccaagg	ggcaagtggg	actggattcc	3480

cagcagcccc	tccactccg	agacaaaatc	agctaccctg	gggcaggcct	cattggcccc	3540
aggaaacccc	agcctgtcag	cacctgttcc	aggatccagt	cccagcgag	ta	3592

<210> 8
 <211> 822
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> APF-TRE

<400> 8							
gcattgctgt	gaactctgta	cttaggacta	aactttgagc	aataacacac	atagattgag		60
gattgtttgc	tgtagcata	caaactctgg	ttcaaagctc	ctctttattg	cttgtcttgg		120
aaaatttgct	gttcttcatg	gtttctcttt	tactgctat	ctatttttct	caaccactca		180
catggctaca	ataactgtct	gcaagcttat	gattcccaaa	tatctatctc	tagcctcaat		240
cttgttccag	aagataaaaa	gtagtattca	aatgcacatc	aacgtctcca	cttggagggc		300
ttaaagacgt	ttcaacatac	aaacggggga	gttttgcttg	gaatgtttcc	taaaatgtgt		360
cctgtagcac	atagggtcct	cttgttcctt	aaaatctaata	tacttttagc	ccagtgtca		420
tcccacctat	ggggagatga	gagtgaagaa	ggagcctgat	taataattac	actaagtcaa		480
taggcataga	gccaggactg	tttgggtaaa	ctggtcactt	tatcttaaac	taaatatatc		540
caaaactgaa	catgtactta	gttactaagt	ctttgacttt	atctcattca	taccactcag		600
ctttatccag	gccacttatg	agctctgtgt	ccttgaacat	aaaatacaaa	taaccgctat		660
gctgttaatt	attggcaaatt	gtcccatttt	caacctaagg	aaataccata	aagtaacaga		720
tataccaaca	aaaggttact	agttaacagg	cattgcctga	aaagagtata	aaagaatttc		780
agcatgattt	tccatattgt	gcttccacca	ctgccaataa	ca			822

<210> 9
 <211> 451
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Probasin-TRE

<400> 9																
aag	ctt	cca	caa	gtg	cat	tta	gcc	tct	cca	gta	ttg	ctg	atg	aat	cca	48
cag	ttc	agg	ttc	aat	ggc	gtt	caa	aac	ttg	atc	aaa	aat	gac	cag	act	96
tta	tat	tta	cac	caa	cat	cta	tct	gat	tgg	agg	aat	gga	taa	tag	tca	144
tca	tgt	tta	aac	atc	tac	cat	tcc	agt	taa	gaa	aat	atg	ata	gca	tct	192
tgt	tct	tag	tct	ttt	tct	taa	tag	gga	cat	aaa	gcc	cac	aaa	taa	aaa	240
tat	gcc	tga	aga	atg	gga	cag	gca	ttg	ggc	att	gtc	cat	gcc	tag	taa	288
agt	act	cca	aga	acc	tat	ttg	tat	act	aga	tga	cac	aat	gtc	aat	gtc	336
tgt	gta	caa	ctg	cca	act	ggg	atg	caa	gac	act	gcc	cat	gcc	aat	cat	384
cct	gaa	aag	cag	cta	taa	aaa	gca	gga	agc	tac	tct	gca	cct	tgt	cag	432
tag	gtc	cag	ata	cct	aca	g										451

<210> 10
 <211> 546
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Tyrosinase-TRE

<400> 10										
ccggttgaaa	atgataagtt	gaattctgtc	ttcgagaaca	tagaaaagaa	ttatgaaatg					60

ccaacatgtg	gttacaagta	atgcagaccc	aaggctcccc	agggacaaga	agtcttgtgt	120
taactctttg	tggctctgaa	agaaagagag	agagaaaaga	ttaagcctcc	ttgtggagat	180
catgtgatga	cttctctgatt	ccagccagag	cgagcatttc	catggaaact	tctcttcctc	240
ttcactcgag	attactaacc	ttattgttaa	tattctaacc	ataagaatta	aactattaat	300
ggtgaataga	gttttttctact	ttaacatagg	cctatccccac	tgggtgggata	cgagccaatt	360
cgaaagaaaa	agtcagtcac	gtgcttttca	gaggatgaaa	gcttaagata	aagactaaaa	420
gtgtttgatg	ctggagggtg	gagtgggtatt	atataggtct	cagccaagac	atgtgataat	480
cactgtagta	gtagctggaa	agagaaatct	gtgactccaa	ttagccagtt	cctgcagacc	540
ttgtga						546

<210> 11

<211> 12047

<212> DNA

<213> Artificial Sequence

<220>

<223> Human glandular kallikrein-TRE

<400> 11

gaattcagaa	ataggggaag	gttgaggaag	gacactgaac	tcaaagggga	tacagtgatt	60
ggtttatttg	tcttctcttc	acaacattgg	tgctggagga	attcccaccc	tgaggttatg	120
aagatgtctg	aacacccaac	acatagcact	ggagatatga	gctcgacaag	agtttctcag	180
ccacagagat	tcacagccta	gggcaggagg	acactgtacg	ccaggcagaa	tgacatggga	240
attgcgctca	cgattggctt	gaagaagcaa	ggactgtggg	aggtgggctt	tgtagtaaca	300
agagggcagg	gtgaactctg	attcccatgg	gggaatgtga	tggctcctgtt	acaaattttt	360
caagctggca	gggaataaaa	cccattacgg	tgaggacctg	tggagggcgg	ctgccccaac	420
tgataaagga	aatagccagg	tgggggcctt	tccattgtga	ggggggacat	atctggcaat	480
agaagccttt	gagacccttt	agggtagcaag	tactgaggca	gcaaataaaa	tgaaatctta	540
tttttcaact	ttatactgca	tgggtgtgaa	gatatatttg	tttctgtaca	gggggtgagg	600
gaaaggaggg	gaggaggaaa	gttcctgcag	gtctggtttg	gtcttgtgat	ccagggggtc	660
ttggaactat	ttaaattaaa	ttaaattaaa	acaagcgact	gtttttaaatt	aaattaaatt	720
aaattaaatt	ttactttatt	ttatcttaag	ttctgggcta	catgtgcagg	acgtgcagct	780
ttgttacata	ggtaaacgtg	tgccatgggtg	gtttgctgta	cctatcaacc	catcacctag	840
gtattaagcc	cagcatgcat	tagctgtttt	tctgacgct	ctccctctcc	ctgactccca	900
caacaggccc	cagtgtgtgt	tgttcccctc	cctgtgtcca	tgtgttctca	ttgttcagct	960
cccacttata	agtgagaaca	tgtgggtgtt	ggttttctgt	ttctgtgtta	gtttgctgag	1020
gataatggct	tccacctcca	tccatgttcc	tgcaaaggac	gtgatcttat	tcttttttat	1080
ggttgcatag	aaattgtttt	tacaaatcca	attgatattg	tatttaatta	caagttaatc	1140
taattagcat	actagaagag	attacagaag	atattaggta	cattgaatga	ggaaatatat	1200
aaaataggac	gaaggtgaaa	tattaggtag	gaaaagtata	atagttgaaa	gaagtaaaaa	1260
aaaatatgca	tgagtagcag	aatgtaaaaag	aggtgaagaa	cgtaatagtg	acttttttaga	1320
ccagattgaa	ggacagagac	agaaaaatth	taaggaattg	ctaaaccatg	tgagtgttag	1380
aagtacagtc	aataacatta	aagcctcagg	aggagaaaag	aataggaaaag	gaggaaatat	1440
gtgaataaat	agtagagaca	tgtttgatgg	atthtaaaat	atthgaaaga	cctcacatca	1500
aaggattcat	accgtgccat	tgaagaggaa	gatggaaaag	ccaagaagcc	agatgaaagt	1560
tagaaatatt	attggcaaag	cttaaatgtt	aaaagtccta	gagagaaaag	atggcagaaa	1620
tattggcggg	aaagaatgca	gaacctagaa	tataaattca	tcccaacagt	ttggtagtgt	1680
gcagctgtag	ccttttctag	ataatacact	attgtcatac	atcgcttaag	cgagtgtaaa	1740
atggctctct	cacttttatt	atthtatatat	ttatttagtt	ttgagatgga	gcctcgctct	1800
gtctcctagg	ctggagtgca	atagtgcgat	accactcact	gcaacctctg	cctcctctgt	1860
tcaagtgatt	ttcttacctc	agcctcccga	gtagctggga	ttacaggtgc	gtgccaccac	1920
accgggctaa	tttttgtatt	ttttgtagag	acgggggttt	gccatgttgg	ccaggctgggt	1980
cttgaactcc	tgacatcagg	tgatccacct	gccttggcct	cctaaagtgc	tgggattaca	2040
ggcatgagcc	accgtgcccc	accactttat	ttatttttta	tttttatttt	ttaaatttcag	2100
cttctatttg	aaatacaggg	ggcacatata	taggattgtt	acatgggtat	attgaactca	2160
ggtagtgatc	atactaccca	acaggtaggt	tttcaacca	ctccccctct	tttcctcccc	2220
attctagtag	tgtgcagtgt	ctattgttct	catgtttatg	tctatgtgtg	ctccaggttt	2280

agctcccacc	tgtaagtga	aacgtgtggt	atttgatttt	ctgtccctgt	gttaattcac	2340
ttaggattat	ggcttccagc	tccattcata	ttgctgtaaa	ggatatgatt	catttttcat	2400
ggccatgcag	tattccatat	tgcgtataga	tcacattttc	tttctttttt	ttttttgaga	2460
cggagtcttg	ctttgctgcc	taggctggag	tgcagtagca	cgatctcggc	tactgcaag	2520
cttcacctcc	gggggtcacg	tcattcttct	gtctcagctt	cccaagtagc	tgggactaca	2580
ggcgcccgcc	accacgtccg	gctaattttt	ttgtgtgttt	ttagtagaga	tgggggtttc	2640
actgtgttag	ccaggatggt	cttgatctcc	tgacctgtgt	gtccacctgc	ctcggctccc	2700
caaagtgtcg	ggattacagg	ggtgagccac	tgcgcccggc	ccatatatac	cacattttct	2760
ttaaccaatc	caccattgat	gggcaactag	gtagattcca	tggattccac	agttttgcta	2820
ttgtgtgcag	tgtggcagta	gacatatgaa	tgaatgtgtc	tttttggtat	aatgatttgc	2880
attccttttg	gtatacagtc	attaatagga	gtgctggggt	gaacggtggc	tctgtttaaa	2940
attcttttgag	aattttccaa	actgtttgcc	atagagagca	aactaattta	catttccacg	3000
aacagtatat	aagcattccc	ttttctccac	agctttgtca	tcattggtttt	tttttttctt	3060
tatttttaaaa	aagaatatgt	tgttgttttc	ccaggggtaca	tgtgcaggat	gtgcagggtt	3120
gttacatagg	tagtaaactg	gagccatggt	ggtttgctgc	acctgtcaac	ccattacctg	3180
ggtagaagc	cctgcctgca	ttagctcttt	tccctaattgc	tctcactact	gccccacct	3240
cacctgaca	gggcaaacag	acaacctaca	gaatgggagg	aaatttttgc	aatctattca	3300
tctgacaaag	gtcaagaata	tccagaatct	acaaggaact	taagcaaatt	tttacttttt	3360
aataatagcc	actctgactg	gcgtgaaatg	gtatctcatt	gtggttttca	tttgaatttc	3420
tctgatgatc	agtgacgatg	agcatttttt	catatttgtt	ggctgcttgt	acgtcttttg	3480
agaagtgtct	cttcattgct	tttggccact	ttaatgggat	tattttttgc	tttttagttt	3540
aagtccctta	tagattctgg	atattagact	tcttattgga	tgcatagttt	gtgaatactc	3600
tcttccattc	tgtaggttgt	ctgtttactc	tattgatggc	ttcttttgct	gtgccgaagc	3660
atcttagttt	aattagaaac	cacctgccaa	tttttgtttt	tgttgcaatt	gcttttgggg	3720
acttagtcat	aaactctttg	ccaaggtctg	ggtcaagaag	agtatttcct	aggttttctt	3780
ctagaatttt	gaaagtctga	atgtaaacad	ttgcattttt	aatgcattct	gagttagttt	3840
ttgtatatgt	gaaagggtct	ctctcatttt	ctttccctct	ttctttcttt	ctttcttttc	3900
tttctttctt	tctttctttc	tttctttctt	tctttctttc	tttctttttg	tccttctttc	3960
tttctttctt	tctctttctt	tctctttctt	tttttttttt	ttgatggagt	attgctctgt	4020
tgcccaggct	gcagtgcagc	ggcacgatct	cggctcactg	caacctctgc	ctcctgggtt	4080
caactgattc	tcctgcatca	gccttccaag	tagctgggat	tataggcgcc	cgccaccacg	4140
cccgactaat	ttttgtattt	ttagtagaga	cgggggtgtg	ccatgttggc	caggctgggt	4200
tgaactcct	gacctcaaac	gatctgcctg	ccttggcctc	ccaaagtgtc	gggattacag	4260
gtgtgagcca	ctgtgcccag	ccaagaatgt	cattttctaa	gagggtccaag	aacctcaaga	4320
tattttggga	ccttgagaag	agagggaattc	atacagggtat	tacaagcaca	gcctaattggc	4380
aaatcttttg	catggcttgg	cttcaagact	ttaggctcct	aaaagtcgaa	tccaaaaatt	4440
tttataaaat	ctccagctaa	gctaccttaa	aaggggcctg	tatggctgat	cactcttctt	4500
gctatacttt	acacaaataa	acaggccaaa	tataatgagg	ccaaaattta	ttttgcaaat	4560
aaattggtcc	tgtctagatt	tactcttggg	aagaacaggg	aaaatagaga	aaaatttaga	4620
ttgcatctga	cctttttttc	tgaattttta	tatgtgccta	caatttgagc	taaatcctga	4680
attattttct	gggtgcaaaa	actctctaaa	gaagaacttg	gttttcattg	tcttcgtgac	4740
acatttatct	ggctctttac	tagaacagct	ttcttggttt	tgggtgttct	gcttgtgtgc	4800
cttacagttc	tactcttcaa	attattgtta	tgtgtatctc	atagttttcc	ttcttttgag	4860
aaaactgaag	ccatggtatt	ctgaggacta	gagatgactc	aacagagctg	gtgaatctcc	4920
tcatatgcaa	tccactgggc	tcatctgtct	tcaaattgct	gatgcactgc	tgctaaagct	4980
atacatttta	aacctcact	aaaggatcag	ggaccatcat	ggaagaggag	gaaacatgaa	5040
attgtaagag	ccagattcgg	ggggtagagt	gtggagggtca	gagcaactcc	acctgaata	5100
agaaggtaaa	gcaacctatc	ctgaaagcta	acctgccatg	gtggcttctg	attaacctct	5160
gttctaggaa	gactgacagt	ttgggtctgt	gtcattgccc	aaatctcatg	ttaaattgta	5220
atccccagtg	ttcggagggtg	ggacttggtg	gtaggtgatt	cggctcatggg	agtagatttt	5280
cttctttgtg	gtgttacagt	gatagtgagt	gagttctcgt	gagatctggg	catttaaaaag	5340
tgtgtggccc	ctccccctcc	tctcttggtc	ctcctactgc	catgtaagat	acctgtcctt	5400
gctttgcctt	ctaccataag	taaaagcccc	ctgaggcctc	cccagaagca	gatgccacca	5460
tgcttctctg	acagcctgca	gaacctcag	ccaattaaac	ctcttttctg	tataaattac	5520
cagtcttgag	tatctcttta	cagcagtgtg	agaacggact	aatacaaggg	tctccaaaat	5580
tccaagttta	tgtattcttt	cttgccaaat	agcaggtatt	taccataaat	cctgtcctta	5640
ggtcaaacaa	ccttgatggc	atcgtaactc	aattgtctta	cacatttctt	ctgaatgact	5700

cctcccctat	ggcatataag	ccctgggtct	tgggggataa	tggcagaggg	gtccaccatc	5760
ttgtctggct	gccacctgag	acacggacat	ggcttctgtt	ggtaagtctc	tattaaatgt	5820
ttctttctaa	gaaactggat	ttgtcagctt	gtttcttttg	cctctcagct	tcctcagact	5880
ttggggtagg	ttgcacaacc	ctgcccacca	cgaacaaaat	gtttaatatg	ataaatatgg	5940
atagatataa	tccacataaa	taaaagctct	tggaggggccc	tcaataattg	ttaagagtgt	6000
aaatgtgtcc	aaagatggaa	aatgttttag	aactactgtc	ccagagattt	tcctgagttc	6060
tagagtgtgg	gaatatagaa	cctggagctt	ggcttcttca	gcctagaatc	aggagtatgg	6120
ggctgaagtc	tgaagcttgg	cttcagcagt	ttggggttgg	cttccggagc	acataattga	6180
catgttgcca	ctgtgatttg	gggtttggta	tttgctctga	atcctaattg	ctgtccttga	6240
ggcatctaga	atctgaaatc	tgtggtcaga	attctattat	cttgagttagg	acatctccag	6300
tcctggttct	gccttctagg	gctggagtct	gtagtcagtg	acccgggtctg	gcatttcaac	6360
ttcatataca	gtgggctatc	ttttgggtcca	tgtttcaacc	aaacaaccga	ataaaccatt	6420
agaacctttc	cccacttccc	tagctgcaat	gttaaacccta	ggatttctgt	ttaataggtt	6480
catatgaata	atttcagcct	gatccaactt	tacattcctt	ctaccgttat	tctacaccca	6540
ccttaaaaaat	gcattcccaa	tatattccct	ggatttctacc	tatatatggg	aatcctggct	6600
ttgccagttt	ctagtgcatt	aacataacctg	atttacattc	ttttacttta	aagtggaaat	6660
aagagtcctt	ctgcagagtt	caggagttct	caagatggcc	cttacttctg	acatcaattg	6720
agatttcaag	ggagtcgcca	agatcactct	caggttctagt	gattgctggg	agccctcata	6780
taactcaatg	aaagctgtta	tgtcatggc	tatggtttat	tacagcaaaa	gaatagagat	6840
gaaaatctag	caaggggaaga	gttgcattggg	gcaaagacaa	ggagagctcc	aagtgcagag	6900
attcctgttg	ttttctccca	gtgggtgtcat	ggaaagcagt	atcttctcca	tacaatgatg	6960
tgtgataata	ttcagtgtat	tgccaatcag	ggaactcaac	tgagccttga	ttatattgga	7020
gcttggttgc	acagacatgt	cgaccacctt	catggctgaa	ctttagtact	tagccccctcc	7080
agacgtctac	agctgatagg	ctgtaaccca	acattgtcac	cataaatcac	attgttagac	7140
tatccagtgt	ggcccaagct	cccgtgtaaa	cacaggcact	ctaaacaggc	aggatatttc	7200
aaaagcttag	agatgacctc	ccaggagctg	aatgcaaaga	cctggcctct	ttgggcaagg	7260
agaatccttt	accgcacact	ctccttcaca	gggtattgtc	gaggatcaaa	tgtggctcatg	7320
tgtgtgagac	accagcacat	gtctggctgt	ggagatgtac	ttctatgtgt	gctaacattg	7380
ctgagtgtca	agaaagtatt	aggcatggct	ttcagcactc	acagatgtct	atctaactct	7440
cacaacatgg	ctacagggtg	ggcactacta	gcctcatttg	acagaggaaa	ggactgtgga	7500
taagaagggg	gtgaccaata	ggtcagagtc	attctggatg	caaggggctc	cagaggacca	7560
tgattagaca	ttgtctgcag	agaaattatg	gctggatgtc	tctgccccgg	aaaggggggat	7620
gcactttcct	tgacccctca	tctcagatct	tgacttttag	gttatctcag	acttctctca	7680
tgataccagg	agcccatcat	aatctctctg	tgtcctctcc	ccttctctcag	tcttactgcc	7740
cactcttccc	agctccatct	ccagctggcc	agggtgtagcc	acagtaccta	actctttgca	7800
gagaactata	aatgtgtatc	ctacagggga	gaaaaaaaaa	aagaactctg	aaagagctga	7860
cattttaccg	acttgcaaac	acataagcta	acctgccagt	tttgtgctgg	tagaactcat	7920
gagactcctg	ggtcagaggc	aaaagatttt	attaccacaa	gctaaggagg	cagcatgaac	7980
tttgtgttca	catttgttca	ctttgcccc	caattcatat	gggatgatca	gagcagttca	8040
ggtggatgga	cacaggggtt	tgtggcaaag	gtgagcaacc	taggcttaga	aatcctcaat	8100
cttataagaa	ggtactagca	aacttgtcca	gtctttgtat	ctgacggaga	tattatcttt	8160
ataattgggt	tgaagcgaga	cctactctgg	aggaacatat	tgtatttatt	gtcctgaaca	8220
gtaaacaat	ctgctgtaaa	atagacgtta	actttattat	ctaaggcagt	aagcaaact	8280
agatctgaag	gcgataccat	cttgcaaggc	tatctgctgt	acaaatatgc	ttgaaaagat	8340
ggtccagaaa	agaaaacggt	attattgcct	ttgctcagaa	gacacacaga	aacataagag	8400
aaccatggaa	aattgtctcc	caacactgtt	caccagagac	cttccactct	tgtctgcagg	8460
acagtcttaa	catcccata	ttagtgtgtc	taccacatct	ggcttcaccg	tgcccaacca	8520
agatttctag	gtccagttcc	ccaccatgtt	tggcagtgcc	ccactgccaa	ccccagaata	8580
agggagtgt	cagaattccg	aggggacatg	ggtggggatc	agaacttctg	ggcttgagtg	8640
cagagggggc	ccatactcct	tggttccgaa	ggaggaagag	gctggagggtg	aatgtccttg	8700
gaggggagga	atgtgggttc	tgaactctta	aatccccaag	ggaggagact	ggtaagggtcc	8760
cagcttccga	ggtactgacg	tgggaatggc	ctgagaggtc	taagaatccc	gtatcctcgg	8820
gaaggagggg	ctgaaattgt	gaggggttga	gttgcagggg	tttgtttagct	tgagactcct	8880
tggtgggtcc	ctgggaagca	aggactggaa	ccattggctc	cagggtttgg	tgtgaaggta	8940
atgggatctc	ctgattctca	aagggtcaga	ggactgagag	ttgcccatgc	tttgatcttt	9000
ccatctactc	cttactccac	ttgagggtaa	tcacctaact	ttctagttcc	acaagagtgc	9060
gcctgcgcga	gtataatctg	cacatgtgcc	atgtcccag	gcctggggca	tcacccaactc	9120

atcattcagc	atctgcgcta	tgccggcgag	gccggcgcca	tgacgtcatg	tagctgcgac	9180
tatccctgca	gcgcgcctct	cccgtcacgt	cccaaccatg	gagctgtgga	cgctgcgtccc	9240
ctgggtggatg	tggcctgcgt	ggtgccaggc	cggggcctgg	tgtccgataa	agatccctaga	9300
accacaggaa	accaggactg	aaaggtgcta	gagaatggcc	atatgtcgct	gtccatgaaa	9360
tctcaaggac	ttctgggtgg	agggcacagg	agcctgaact	tacgggtttg	ccccagtgca	9420
ctgtcctccc	aagtgagtct	cccagatacg	aggcactgtg	ccagcatcag	cttcacttgt	9480
accacatctt	gtaacaggga	ctaccaggga	ccctgatgaa	caccatgggtg	tgtgcaggaa	9540
ggagggaggct	gtggactggc	tcgagaagtg	ggatgtggtt	gtgtttgatt	tcctttggcc	9600
agataaagtg	ctggatatag	cattgaaaac	ggagtatgaa	gaccagttag	aatggagggt	9720
caggttggag	ttgagttaca	gatggggtaa	aattctgctt	cggatgagtt	tggggattgg	9780
caatctaaag	gtggtttggg	atggcatggc	tttgggatgg	aaatagggtt	gtttttatgt	9840
tggctgggaa	gggtgtgggg	attgaattgg	ggatgaagta	ggtttagttt	tggagataga	9900
atacatggag	ctggctattg	catgcgagga	tgtgcattag	tttgggttga	tctttaaata	9960
aaggaggcta	ttagggttgt	cttgaattag	attaagtgtg	gttgggttga	tgggttgggc	10020
ttgtgggtga	tgtggttggg	ttgggctgtg	tataattggt	ttgggtcagg	ttttggttga	10080
ggttatcatg	gggatgagga	tatgcttggg	acatggattc	aggtggttct	cattcaagct	10140
gaggcaaat	tcctttcaga	cggtcattcc	agggaaacgag	tggttgtgtg	ggggaaatca	10200
ggccactggc	tgtgaatatc	cctctatcct	ggtcttgaat	tgtgattatc	tatgtccatt	10260
ctgtctcctt	cactgtactt	ggaattgatc	tggtcattca	gctggaaatg	ggggaagatt	10320
ttgtcaaatt	cttgagacac	agctgggtct	ggatcagcgt	aagccttcct	tctgggttta	10380
ttgaacagat	gaaatcacat	tttttttttc	aaaatcacag	aatcttata	gagttaacag	10440
tggactctta	taataagagt	taacaccagg	actcttattc	ttgattcctt	tctgagacac	10500
caaaatgaga	tttctcaatg	ccacccta	tctttttttt	tttttttttt	tttttgagac	10560
acagtctggg	tcttttgctc	tgtcactcag	gctggagcgc	agtgggtgga	tcatagtcca	10620
ctgaaccctt	gacctcctgg	acttaaggga	tcctcctgct	tcagcctcct	gagtagatgg	10680
ggctacagg	gcttgccacc	acacctggct	aattaaattt	tttttttttt	ttttagaga	10740
aagggtctca	ctttgttgcc	ctggctgatc	ttgaacttct	gacttcaagt	gattcttcag	10800
ccttggaactc	ccaaagcact	gggattgctg	gcatgagcca	ctcacctgct	ctggcttgca	10860
gcttaatctt	ggagtgtata	aacctggctc	ctgatagcta	gacatttcag	tgagaaggag	10920
gcattggatt	ttgcatgagg	acaattctga	cctaggaggg	cagggtcaaca	ggaatccccg	10980
ctgtacctgt	acgttggtaca	ggcatggaga	atgaggagtg	aggaggccgt	accggaacct	11040
catattgttt	agtggacatt	ggattttgaa	ataataggga	acttgggtctg	ggagagtcac	11100
atttctggat	tggacaatat	gtgggtatcac	aaggttttat	gatgaggagg	aaatgtatgt	11160
ggggaacctat	tttctgagtg	tggaaagtga	agaatcagag	agtagctgaa	tgccaacgct	11220
tctatttcag	gaacatggta	agttggagg	ccagctctcg	ggctcagacg	ggtataggga	11280
ccaggaagtc	tcacaatccg	atcattctga	tatttcagg	catattaggt	ttggggtgca	11340
aaggaagtac	ttgggactta	ggcacatgag	actttgtatt	gaaaatcaat	gattggggct	11400
ggccgtgggtg	ctcacgcctg	taatctcatc	actttgggag	accgaagtgg	gaggatggct	11460
tgatctcaag	agttggacac	cagcctaggc	aacatggcca	gaccctctct	ctacaaaaaa	11520
attaaaaaatt	agctggatgt	ggtggtgcat	gcttgtggct	tcagctatcc	tggaggctga	11580
gacaggagaa	tgggttgagt	ctgggagttc	aaggctacag	ggagctgcga	tcacgccgct	11640
gcactccagc	ctgggaaaca	gagtgaagct	gtctcagaat	ttttttaaaa	aagaatcagt	11700
gatcatccca	acctctgttg	ctgttcaccc	tgagcctgcc	ttctctggct	ttgttcctta	11760
gatcacatct	ccatgatcca	taggcctgct	ccaatctgac	ctcacaccgt	gggaatgcct	11820
ccagactgat	ctagtatgtg	tggaaacagca	agtgtctggct	ctccctcccc	ttccacagct	11880
ctgggtgtgg	gaggggggtg	tccagcctcc	agcagcatgg	ggagggcctt	ggtcagcatc	11940
taggtgccaa	caggggcaagg	gcggggtcct	ggagaatgaa	ggcttttatag	ggctcctcag	12000
ggaggccccc	cagccccc	ctgcaccacc	tggccgtgga	caccggt		12047

<210> 12

<211> 67

<212> DNA

<213> Artificial Sequence

<220>

<223> HRE-TRE

<400> 12
 ccccaggga gtgcatgagg ctgagggcgt gcgtgagtcg cagcgagacc ccgggggtgca 60
 ggccgga 67

<210> 13
 <211> 5835
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> PSA-TRE

<400> 13
 aagcttctag ttttcttttc ccggtgacat cgtggaaagc actagcatct ctaagcaatg 60
 atctgtgaca atattcacag tgtaatgcc a tccagggaac tcaactgagc cttgatgtcc 120
 agagattttt gtgttttttt ctgagactga gtctcgctct gtgccaggct ggagtgcagt 180
 ggtgcaacct tggctcactg caagctccgc ctctggggtt cagccattc tctgcctca 240
 gctcctgag tagctgggac tacaggcacc cgcaccacg cctggctaatt tttttgtat 300
 ttttagtga gatggggtt cactgtgtta gccaggatgg tctcagtctc ctgacctcgt 360
 gatctgccc ccttggcctc ccaaagtgtc gggatgacag gcgtgagcca ccgcgcctgg 420
 ccgatatcca gagatttttt ggggggctcc atcacacaga catgttgact gtcttcatgg 480
 ttgactttta gtatccagcc cctctagaaa tctagctgat atagtgtggc tcaaacctt 540
 cagcacaat cacaccgtta gactatctgg tgtggcccaa accttcagg gaacaaagg 600
 actctaactt ggcaggatac tccaaagcat tagagatgac ctcttgcaaa gaaaaagaaa 660
 tggaaaagaa aaagaaagaa aggaaaaaaa gagatgacct ctcaggctct 720
 gaggggaaac gcctgaggtc tttgagcaag gtcagtcctc tgttgacacag tctccctcac 780
 agggctcatt tgacgatcaa atgtggtcac gtgtatgagg caccagcaca tgcctggctc 840
 tggggagtgc cgtgtaagt tatgcttgca ctgctgaatg gctgggatgt gtcagggtatt 900
 atcttcagca cttacagatg ctcatctcat cctcacagca tcactatggg atgggtatta 960
 ctggcctcat ttgatggaga aagtggctgt ggctcagaaa ggggggacca ctagaccagg 1020
 gacactctgg atgctgggga ctccagagac catgaccact caccaactgc agagaaatta 1080
 attgtggcct gatgtccctg tcctggagag ggtggagggtg gaccttcact aacctcctac 1140
 cttgaccctc tcttttaggg ctctttctga cctccaccat ggtactagga cccatttga 1200
 ttctgtaccc tcttgactct atgaccccca ccgcccactg catccagctg ggtccctcc 1260
 tatctctatt ccagctggc cagtgcagtc tcagtgccca cctgtttgtc agtaactctg 1320
 aaggggctga cttttactg acttgcaaac aaataagcta actttccaga gttttgtgaa 1380
 tgctggcaga gtccatgaga ctctgagtc agaggcaaag gcttttactg ctccagctt 1440
 agcagacagc atgaggttca tgttcacatt agtacacctt gcccccccca aatctttag 1500
 ggtgaccaga gcagtctagg tggatgctgt gcagaagggg tttgtgccac tggtagaaa 1560
 cctgagatta ggaatcctca atcttatact gggacaactt gcaaacctgc tcagcctttg 1620
 tctctgatga agatattatc ttcattgatct tggattgaaa gtaagagaca ttatctttat 1680
 catattgtat cgattgtcct tgacagtaaa caaatctgtt gtaagagaca ttatctttat 1740
 tatctaggac agtaagcaag cctggatctg agagagatat catcttgcaa ggatgcctgc 1800
 tttacaaaca tccttgaac aacaatccag aaaaaaaaag gtgttactgt ctttgctcag 1860
 aagacacaca gatacgtgac agaaccatgg agaattgcct cccaacgctg ttcagccaga 1920
 gccttcacc ctttctgcag gacagtctca acgttccacc attaaatact tcttctatca 1980
 catcccgtt ctttatgcct aaccaagggt ctagggtccc atcgactgtg tctggcagca 2040
 ctccactgcc aaaccagaa taaggcagcg ctcaggatcc cgaaggggca tggctgggga 2100
 tcagaacttc tgggtttgag tgaggagtgg gtccaccctc ttgaatttca aaggaggaa 2160
 aggctggatg tgaagggtact gggggaggga aagtgtcagt tccgaactct taggtcaatg 2220
 agggaggaga ctggtaaggc cccagctccc gaggtaactga tgtgggaatg gcctaagaat 2280
 ctcatatcct caggaagaag gtgctggaat cctgaggggt agagtcttg gtatatattgt 2340
 ggcttaaggc tctttggccc ctgaaggcag aggttggaac cattaggtcc aggggttggg 2400
 gtgatatgaa tgggatctct tgattcctca agagtctgag gatcgagggt tgccattct 2460
 tccatcttgc cacctaactc ttactccact tgagggtatc accagccctt ctagctccat 2520
 gaagggtcccc tgggcaagca caatctgagc atgaaagatg cccagaggc cttgggtgtc 2580

atccactcat	catccagcat	cacactctga	gggtgtggcc	agcaccatga	cgatcatgtt	2640
ctgtgactat	ccctgcagcg	tgcctctcca	gccacctgcc	aaccgtagag	ctgcccattcc	2700
tcctctgggtg	ggagtggcct	gcatgggtgcc	aggctgaggc	ctagtgtcag	acagggagcc	2760
tggaatcata	gggatccagg	actcaaaagt	gctagagaat	ggccatatgt	caccatccat	2820
gaaatctcaa	gggcttcttg	gtggagggca	cagggacctg	aacttatggg	ttcccaagtc	2880
tattgctctc	ccaagtgagt	ctcccagata	cgaggcactg	tgccagcatc	agccttatct	2940
ccaccacatc	ttgtaaaagg	actacccagg	gccctgatga	acaccatggg	gtgtacagga	3000
gtaggggggtg	gaggcacgga	ctcctgtgag	gtcacagcca	agggagcatc	atcatgggtg	3060
gggaggaggc	aatggacagg	cttgagaacg	gggatgtggg	tgtatttggt	tttctttggg	3120
tagataaagt	gctgggtata	ggattgagag	tggagtatga	agaccagtta	ggatggagga	3180
tcagattgga	gttgggttag	ataaagtgtc	gggtatagga	ttgagagtgg	agtatgaaga	3240
ccagtttagga	tggaggatca	gattggaggt	gggttagaga	tggggtaaaa	ttgtgctccg	3300
gatgagtttg	ggattgacac	tgtggaggtg	gtttgggatg	gcatggcctt	gggatggaaa	3360
tagatttggt	ttgatgttgg	ctcagacatc	cttggggatt	gaactgggga	tgaagctggg	3420
tttgattttg	gaggtagaag	acgtggaagt	agctgtcaga	tttgacagtg	gccatgagtt	3480
ttgtttgatg	gggaatcaaa	caatggggga	agacataagg	gttggttgt	taggttaagt	3540
tgcgttgggt	tgatgggggc	ggggctgtgt	ataatgcagt	tggattgggt	tgtattaaat	3600
tgggttgggt	cagggttttg	ttgaggatga	gttgaggata	tgcttgggga	caccggatcc	3660
atgaggttct	cactggagtg	gagacaaact	tcctttccag	gatgaatcca	gggaagcctt	3720
aattcacgtg	taggggaggt	caggccactg	gctaagtata	tccttccact	ccagctctaa	3780
gatggtctta	aattgtgatt	atctatatcc	acttctgtct	ccctcactgt	gcttggagtt	3840
tacctgatca	ctcaactaga	aacaggggaa	gattttatca	aattcttttt	tttttttttt	3900
tttttttgag	acagagtctc	actctgttgc	ccaggctgga	gtgcagtggc	gcagtctcgg	3960
ctcactgcaa	cctctgcctc	ccaggttcaa	gtgattctcc	tgcctcagcc	tcctgagttg	4020
ctgggattac	aggcatgcag	caccatgccc	agctaatttt	tgtattttta	gtagagatgg	4080
ggtttcacca	atgtttgcca	ggctggcctc	gaactcctga	cctgggtgatc	cacctgcctc	4140
agcctcccaa	agtgtctggga	ttacaggcgt	cagccaccgc	gcccagccac	ttttgtcaaa	4200
ttcttgagac	acagctcggg	ctggatcaag	tgagctactc	tggttttatt	gaacagctga	4260
aataaccaac	tttttggaaa	ttgatgaaat	cttacggagt	taacagtggg	ggtaccaggg	4320
ctcttaagag	ttcccgattc	tcttctgaga	ctacaaattg	tgattttgca	tgccacctta	4380
atcttttttt	tttttttttt	aaatcgaggt	ttcagtctca	ttctatttcc	caggctggag	4440
ttcaatagcg	tgatcacagc	tcactgtagc	cttgaactcc	tggccttaag	agattctcct	4500
gcttcggtct	cccaatagct	aagactacag	tagtccacca	ccatatccag	ataattttta	4560
aatttttttg	ggggccgggc	acagtggctc	acgcctgtaa	tcccaacacc	atgggagggt	4620
gagatgggtg	gatcacgagg	tcaggagttt	gagaccagcc	tgaccaacat	ggtgaaactc	4680
tgtctctact	aaaaaaaaaa	aaaatagaaa	aattagccgg	gcgtgggtggc	acacggcacc	4740
tgtaatccca	gctactgagg	aggctgaggc	aggagaatca	cttgaaccca	gaaggcagag	4800
gttgcaatga	gccgagattg	cgccactgca	ctccagcctg	ggtgacagag	tgagactctg	4860
tctcaaaaaa	aaaaaatttt	tttttttttt	ttgtagagat	ggatcttgct	ttgtttctct	4920
ggttggcctt	gaactcctgg	cttcaagtga	tcctcctacc	ttggcctcgg	aaagtgttgg	4980
gattacaggc	gtgagccacc	atgactgacc	tgtcgttaat	cttgaggtac	ataaacctgg	5040
ctcctaaagg	ctaaaggcta	aatatttggt	ggagaagggg	cattggattt	tgcatgagga	5100
tgattctgac	ctgggagggc	aggtcagcag	gcatctctgt	tgacacagata	gagtgtacag	5160
gtctggagaa	caaggagtgg	ggggttattg	gaattccaca	ttgtttgctg	cacgttggat	5220
tttgaaatgc	tagggaactt	tgggagactc	atatttctgg	gctagaggat	ctgtggacca	5280
caagatcttt	ttatgatgac	agtagcaatg	tatctgtgga	gctggattct	gggttgggag	5340
tgcaaggaaa	agaatgtact	aaatgccaag	acatctattt	caggagcatg	aggaataaaa	5400
gttctagttt	ctggtctcag	agtgggtgcat	ggatcagggg	gtctcacaat	ctcctgagtg	5460
ctggtgtctt	agggcacact	gggtcttgga	gtgcaaagga	tctaggcacg	tgaggctttg	5520
tatgaagaat	cggggatcgt	acccaccccc	tgtttctgtt	tcactcctggg	catgtctcct	5580
ctgcctttgt	cccctagatg	aagtctccat	gagctacaag	ggcctgggtgc	atccaggggtg	5640
atctagtaat	tgcagaacag	caagtgtctg	ctctccctcc	ccttccacag	ctctgggtgt	5700
gggagggggg	tgtccagcct	ccagcagcat	ggggagggcc	ttgggtcagcc	tctgggtgcc	5760
agcagggcag	gggaggagtc	ctggggaatg	aagggttttat	agggctcctg	ggggaggctc	5820
cccagcccca	agctt					5835

<210> 14

<211> 15056
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> CEA TRE

<400> 14

aagcttttta	gtgcttttaga	cagtgaagctg	gtctgtcttaa	cccaagtgaac	ctggggtcca	60
tactcagccc	cagaagtga	gggtgaagct	gggtggagcc	aaaccaggca	agcctaccct	120
cagggtctccc	agtggcctga	gaaccattgg	accaggagcc	cattacttct	agggttaagga	180
agggtacaaac	accagatcca	accatggtct	ggggggacag	ctgtcaaagt	cctaaaaata	240
tacctgggag	aggagcaggc	aaactatcac	tgccccaggt	tctctgaaca	gaaacagagg	300
ggcaacccaa	agtccaaatc	cagggtgagca	ggtgcaccaa	atgcccagag	atatgacgag	360
gcaagaagtg	aaggaaccac	ccctgcatca	aatgttttgc	atgggaagga	gaaggggggtt	420
gctcatgttc	ccaatccagg	agaatgcatt	tgggatctgc	cttcttctca	ctccttgggt	480
agcaagacta	agcaaccagg	actctggatt	tggggaaaga	cgtttatttg	tggaggccag	540
tgatgacaa	cccacgaggg	cctaggtgaa	gagggcagga	aggctcgaga	cactgggggac	600
tgagtgaata	ccacacccat	gatctgcacc	accatgggat	gctccttcat	tgctcacctt	660
tctgttgata	tcagatggcc	ccattttctg	taccttcaca	gaaggacaca	ggctagggtc	720
tgtgcatggc	cttcatcccc	ggggccatgt	gaggacagca	ggtgggaaag	atcatgggtc	780
ctcctgggtc	ctgcagggcc	agaacattca	tcaccatac	tgacctccta	gatgggaatg	840
gcttccttgg	ggctgggcca	acggggcctg	ggcaggggag	aaaggacgtc	aggggacagg	900
gaggaagggt	catcgagacc	cagcctggaa	ggttcttgtc	tctgaccatc	caggatttac	960
ttccttgcac	ctaccttttg	tcattttccc	tcagcaatga	ccagctctgc	ttcctgatct	1020
cagcctccca	ccctggacac	agcaccacag	tccttggccc	ggctgcatcc	acccaatacc	1080
ctgataaccc	aggacccatt	acttctaggg	taaggagggt	ccaggagaca	gaagctgagg	1140
aaaggtctga	agaagtacac	tctgtcctgg	ccagagggga	aaaaccatca	gatgtgaac	1200
caggagaatg	ttgaccagg	aaagggaccg	aggacccaag	aaaggagtca	gaccaccagg	1260
gtttgcctga	gaggaaggat	caaggccccg	agggaaagca	gggctggctg	catgtgcagg	1320
acactgggtg	ggcatatgtg	tcttagattc	tccttgaatt	cagtgtccct	gccatggcca	1380
gactctctac	tcaggccttg	acatgctgaa	ataggacaat	ggccttgtcc	tctctcccca	1440
ccatttggca	agagacataa	aggacattcc	aggacatgcc	ttcctgggag	gtccagggtt	1500
tctgtctcac	acctcaggga	ctgtagttac	tgcatcagcc	atggtaggtg	ctgatctcac	1560
ccagcctgtc	caggcccttc	cactctccac	tttgtgacca	tgtccaggac	caccctcag	1620
atcctgagcc	tgcaaatacc	cccttgtctg	gtgggtggat	tcagtaaaca	gtgagctcct	1680
atccagcccc	cagagccacc	tctgtcacct	tcctgtctgg	catcatccca	ccttcacaag	1740
cactaaagag	catggggaga	cctggctagc	tgggtttctg	catcacaag	aaaataatcc	1800
cccagggttcg	gattcccagg	gctctgtatg	tggagctgac	agacctgagg	ccaggagata	1860
gcagaggtca	gccctaggga	gggtgggtca	tcaccccagg	ggacaggggt	gcaccagcct	1920
tgctactgaa	agggcctccc	caggacagcg	ccatcagccc	tgcttgagag	ctttgtctaaa	1980
cagcagtcag	aggaggccat	ggcagtggtc	gagctcctgc	tccaggcccc	aacagaccag	2040
accaacagca	caatgcagtc	cttccccaac	gtcacagggtc	accaaaggga	aactgagggtg	2100
ctacctaac	ttagagccat	caggggagat	aacagcccaa	tttcccaaac	aggccagttt	2160
caatcccatg	acaatgacct	ctctgtcttc	attcttccca	aaataggacg	ctgattctcc	2220
cccaccatgg	atttctccct	tgtcccggga	gccttttctg	ccccctatga	tctggggcact	2280
cctgacacac	acctctcttc	tgggtgacata	tcagggtccc	tcactgtcaa	gcagtccaga	2340
aaggacagaa	ccttgagacg	cgcccatctc	agcttcaccc	ttcctccttc	acagggttca	2400
gggcaaagaa	taaatggcag	aggccagtga	gccagagat	ggtgacaggc	agtgaccacg	2460
gggcagatgc	ctggagcagg	agctggcggg	gccacaggga	gaaggtgatg	caggaaggga	2520
aacccagaaa	tgggcaggaa	aggaggacac	aggctctgtg	gggctgcagc	ccagggttgg	2580
actatgagt	tgaagccatc	tcagcaagta	aggccaggtc	ccatgaacaa	gagtgggagc	2640
acgtggcttc	ctgctctgta	tatgggttgg	gggattccat	gccccataga	accagatggc	2700
cggggttcag	atggagaagg	agcaggacag	gggatcccca	ggataggagg	acccagtggt	2760
ccccaccag	gcaggtgact	gatgaatggg	catgcagggt	cctcctgggc	tgggctctcc	2820
ctttgtccct	caggattcct	tgaaggaaca	tcgggaagcc	gaccacatct	acctgggtggg	2880
ttctggggag	tccatgtaaa	gccaggagct	tgtgttgcta	ggaggggtca	tggcatgtgc	2940

tgggggcacc	aaagagagaa	acctgagggc	aggcaggacc	tggtctgagg	aggcatggga	3000
gcccagatgg	ggagatggat	gtcaggaaag	gctgccccat	cagggagggt	gatagcaatg	3060
gggggtctgt	gggagtgggc	acgtgggatt	ccctgggctc	tgccaagttc	cctcccatag	3120
tcacaacctg	gggacactgc	ccatgaaggg	gcgcctttgc	ccagccagat	gctgctgggt	3180
ctgcccattc	actaccctct	ctgctccagc	cactctgggt	ctttctccag	atgccctgga	3240
cagccctggc	ctgggcctgt	cccctgagag	gtgttgggag	aagctgagtc	tctggggaca	3300
ctctcatcag	agtctgaaag	gcacatcagg	aaacatccct	ggtctccagg	actaggcaat	3360
gaggaaaggg	ccccagctcc	tccctttgcc	actgagaggg	tcgaccctgg	gtggccacag	3420
tgacttctgc	gtctgtccca	gtcaccttga	aaccacaaca	aaaccccagc	cccagaccct	3480
gcaggtacaa	tacatgtggg	gacagtctgt	acccagggga	agccagttct	ctcttcctag	3540
gagaccgggc	ctcagggtctg	tgcccggggc	aggcgggggc	agcacgtgcc	tgctcttgag	3600
aactcgggac	cttaaggggtc	tctgctctgt	gaggcacagc	aaggatcctt	ctgtccagag	3660
atgaaagcag	ctcctgcccc	tcctctgacc	tcttctcctc	tcccaaactc	caaccaacaa	3720
ataggtgttt	caaactctcat	catcaaactc	tcattccatcc	acatgagaaa	gcttaaaacc	3780
caatggattg	acaacatcaa	gagttggaac	aagtggaatc	ggagatgtta	cttgtggaaa	3840
tttagatgtg	ttcagctatc	gggcaggaga	atctgtgtca	aattccagca	tggttcagaa	3900
gaatcaaaaa	gtgtcacagt	ccaaatgtgc	aacagtgcag	gggataaaac	tgtgtgtcat	3960
tcaaactgag	ggatattttg	gaacatgaga	aaggaaggga	ttgctgtctg	acagaacatg	4020
gatgatctca	cacatagagt	tgaagaaaag	gagtcaatcg	cagaatagaa	aatgatcact	4080
aattccacct	ctataaagtt	tccaagagga	aaacccaatt	ctgctgctag	agatcagaat	4140
ggaggtgacc	tgtgccttgc	aatggctgtg	agggtcacgg	gagtgctact	tagtgagggc	4200
aatgtgccgt	atcttaatct	gggcagggtc	ttcatgagca	cataggaatg	cagacattac	4260
tgctgtgttc	attttacttc	accggaaaaa	aagaataaaa	tcagccgggc	gcgggtggctc	4320
acgcctgtaa	tcccagcact	ttagaaggct	gaggtgggca	gattacttga	ggtcaggagt	4380
tcaagaccac	cctggccaat	atggtgaaac	cccggctcta	ctaaaaatac	aaaaatttagc	4440
tgggcatggg	ggtgcgcgcc	tgtaatccca	gctactcggg	aggctgaggc	tggacaattg	4500
cttggaccca	ggaagcagag	gttgcagtga	gccaagattg	tgccactgca	ctccagcttg	4560
ggcaacagag	ccagactctg	taaaaaaaaa	aaaaaaaaaa	aaaaaaagaa	agaaagaaaa	4620
agaaaagaaa	gtataaaatc	tctttggggt	aacaaaaaaa	gatccacaaa	acaaacacca	4680
gctcttatca	aacttacaca	actctgccag	agaacaggaa	acacaaatac	tcattaactc	4740
acttttgtgg	caataaaacc	ttcatgtcaa	aaggagacca	ggacacaaatg	aggaagtaaa	4800
actgcaggcc	ctacttgggt	gcagagaggg	aaaatccaca	aataaaacat	taccagaagg	4860
agctaagatt	tactgcattg	agttcattcc	ccaggtatgc	aaggtgattt	taacacctga	4920
aaatcaatca	ttgcctttac	tacatagaca	gattagctag	aaaaaaatta	caactagcag	4980
aacagaagca	atgtggcctt	cctaaaaattc	cacatcatat	catcatgatg	gagacagtgc	5040
agacgccaat	gacaataaaa	agagggacct	ccgtcacccg	gtaaacatgt	ccacacagct	5100
ccagcaagca	cccgtcttcc	cagtgaatca	ctgtaacctc	ccctttaatc	agccccaggc	5160
aaggctgcct	gcgatggcca	cacaggctcc	aaccctgtgg	cctcaacctc	ccgcagaggc	5220
tctccttttg	ccaccccatg	gggagagcat	gaggacaggg	cagagccctc	tgatgcccac	5280
acatggcagg	agctgacgcc	agagccatgg	gggctggaga	gcagagctgc	tggggtcaga	5340
gcttctctgag	gacacccagg	cctaagggaa	ggcagctccc	tggatggggg	caaccaggct	5400
ccgggctcca	acctcagagc	ccgcattggga	ggagccagca	ctctaggcct	ttcctagggt	5460
gactctgagg	ggacccctgac	acgacaggat	cgctgaatgc	acccgagatg	aagggggccac	5520
cacgggaccc	tgctctcgtg	gcagatcagg	agagagtggg	acaccatgcc	aggcccccat	5580
ggcatggctg	cgactgaccc	aggccactcc	cctgcatgca	tcagcctcgg	taagtccatc	5640
gaccaagccc	aggaccaatg	tggaaaggaag	gaaacagcat	cccctttagt	gatggaaccc	5700
aaggctcagt	caaagagagg	ccatgagcag	ttaggaaggg	tggtccaacc	tacagcacia	5760
accatcatct	atcataagta	gaagccctgc	tccatgaccc	ctgcatttaa	ataaacgttt	5820
gttaaattgag	tcaaattccc	tcaccatgag	agctcacctg	tgtgtaggcc	catcacacac	5880
acaaacacac	acacacacac	acacacacac	acacacacac	acagggaaaag	tgcaggatcc	5940
tggacagcac	caggcaggct	tcacaggcag	agcaaacagc	gtgaatgacc	catgcagtgc	6000
cctgggcccc	atcagctcag	agaccctgtg	agggctgaga	tggggctagg	caggggagag	6060
acttagagag	ggtggggcct	ccagggaggg	ggctgcaggg	agctgggtac	tgccctccag	6120
ggagggggct	gcagggagct	gggtactgcc	ctccaggggg	ggggctgcag	ggagctgggt	6180
actgccctcc	agggaggggg	ctgcaggggg	ctgggtactg	ccctccaggg	agggggctgc	6240
agggagctgg	gtactgccct	ccagggaggc	aggagcactg	ttcccaacag	agagcacatc	6300
ttcctgcagc	agctgcacag	acacaggagc	ccccatgact	gccctggggc	aggggtgtgga	6360

ttccaaattt	cgtgccccat	tgggtgggac	ggaggttgac	cgtgacatcc	aaggggcac	6420
tgtgattcca	aacttaaaact	actgtgccta	caaaatagga	aataacccta	ctttttctac	6480
tatctcaa	tcctaagca	caagctagca	ccctttaaat	caggaagttc	agtcactcct	6540
ggggtcctcc	catgccccca	gtctgacttg	caggtgcaca	gggtggctga	catctgtcct	6600
tgctcctcct	cttggctcaa	ctgccgcccc	tcctgggggt	gactgatggg	caggacaagg	6660
gacccatagag	ctggccccat	gattgacagg	aaggcaggac	ttggcctcca	ttctgaagac	6720
taggggtgtc	aagagagctg	ggcatccccc	agagctgcac	aagatgacgc	ggacagaggg	6780
tgacacaggg	ctcagggcctt	cagacgggtc	gggaggctca	gctgagagtt	cagggacaga	6840
cctgaggagc	ctcagttggga	aaagaagcac	tgaagtggga	agttctggaa	tgttctggac	6900
aagcctgagt	gctctaagga	aatgctccca	ccccgatgta	gcctgcagca	ctggacgggtc	6960
tgtgtacctc	cccgtctgcc	atcctctcac	agcccccgcc	tctagggaca	caactcctgc	7020
cctaacatgc	atctttcctg	tctcattcca	cacaaaaggg	cctctggggg	ccctgttctg	7080
cattgcaagg	agtggagggtc	acgttccccc	agaccaccca	gcaacagggt	cctatggagg	7140
tgcggtcagg	aggatcacac	gtccccccat	gcccaggggg	ctgactctgg	gggtgatgga	7200
ttggcctgga	ggccactggg	cccctctgtc	cctgagggga	atctgcaccc	tggaggctgc	7260
cacatccctc	ctgattcttt	cagctgaggg	cccttcttga	aatcccaggg	aggactcaac	7320
ccccactggg	aaaggccacg	tgtggacggg	tccacagcag	cccagctaag	gcccttggac	7380
acagatcctg	agtgaagaaa	cctttaggga	cacaggtgca	cggccatgtc	cccagtgcct	7440
acacagagca	ggggcatctg	gacctgaggt	gtgtagctcc	cgcgactgaa	cccagccctt	7500
ccccaatgac	gtgacccttg	gggtggctcc	aggtctccag	tccatgccac	caaaatctcc	7560
agattgaggg	tcctcccttg	agtccctgat	gcctgtccag	gagctgcccc	ctgagcaaat	7620
ctagagtgc	gagggctggg	attgtggcag	taaaagcagc	cacatttgtc	tcaggaagga	7680
aagggaggac	atgagctcca	ggaagggcga	tggcgtcctc	tagtgggcgc	ctcctgttaa	7740
tgagcaaaaa	ggggccagga	gagttgagag	atcagggtcg	gccttggact	aaggctcaga	7800
tggagaggac	tgaggtgcaa	agaggggggt	gaagtagggg	agtggctcgg	agagatggga	7860
ggagcaggta	aggggaagcc	ccagggaagg	cgggggaggg	tacagcagag	ctctccactc	7920
ctcagcattg	acatttgggg	tggctgtgct	agtgggggtc	tgtaaagtgt	aggggtgttca	7980
gcaccatctg	gggactctac	ccactaaatg	ccagcaggac	tccttcccca	agctctaaca	8040
accaacaatg	tctccagact	ttccaaatgt	cccctggaga	gcaaaattgc	ttctggcaga	8100
atcactgatc	tacgtcagtc	tctaaaagtg	actcatcagc	gaaatccttc	acctcttggg	8160
agaagaatca	caagtgtgag	aggggtagaa	actgcagact	tcaaaatctt	tccaaaagag	8220
ttttacttaa	tcagcagttt	gatgtcccg	gagaagatac	atttagagtg	tttagagtgt	8280
atgccacatg	gctgcctgta	cctcacagca	ggagcagagt	gggttttcca	agggcctgta	8340
accacaatg	gaatgacact	cactgggtta	cattacaag	tggaatgtgg	ggaattctgt	8400
agactttggg	aagggaaatg	tatgacgtga	gcccacagcc	taaggcagtg	gacagtccac	8460
tttgaggctc	tcaccatcta	ggagacatct	cagccatgaa	catagccaca	tctgtcatta	8520
gaaaacatgt	tttattaaga	ggaaaaatct	aggctagaag	tgctttatgc	tcttttttct	8580
ctttatgttc	aaattcatat	acttttagat	cattccttaa	agaagaatct	atccccctaa	8640
gtaaatgtta	tcactgactg	gatagtgttg	gtgtctcact	cccaacccct	gtgtgggtgac	8700
agtgcctctg	ttccccagcc	ctgggcccctc	tctgattcct	gagagctttg	gggtgctcctt	8760
cattaggagg	aagagaggaa	gggtgttttt	aatattctca	ccattcacc	atccacctct	8820
tagacactgg	gaagaatcag	ttgcccactc	ttggatttga	tcctcgaatt	aatgacctct	8880
atctctgtcc	cttgtccatt	tcaacaatgt	gacaggccta	agaggtgcct	tctccatgtg	8940
atcttttgagg	agaaggttct	caagataagt	tttctcacac	ctctttgaat	tacctccacc	9000
tgtgtcccca	tcaccattac	cagcagcatt	tggacccttt	ttctgttagt	cagatgcttt	9060
ccacctcttg	aggggtgtata	ctgtatgctc	tctacacagg	aatatgcaga	ggaaatagaa	9120
aaagggaaat	cgcattacta	ttcagagaga	agaagacctt	tatgtgaatg	aatgagagtc	9180
taaaatccta	agagagccca	tataaaatta	ttaccagtgc	taaaactaca	aaagttacac	9240
taacagtaaa	ctagaataat	aaaacatgca	tcacagttgc	tggtaaagct	aaatcagata	9300
tttttttctt	agaaaaagca	ttccatgtgt	ggtgcagtga	tgacaggagt	gcccttcagt	9360
caatatgtctg	cctgtaattt	ttgttccctg	gcagaatgta	ttgtcttttc	tccctttaa	9420
tcttaaatgc	aaaactaaag	gcagctcctg	ggccccctcc	ccaaagtcag	ctgcctgcaa	9480
ccagccccac	gaagagcaga	ggcctgagct	tccttggtca	aaataggggg	ctagggagct	9540
taaccttgct	cgataaagct	gtgttcccag	aatgtcgctc	ctgttcccag	gggcaccagc	9600
ctggaggggtg	gtgagcctca	ctgggtggcct	gatgcttacc	ttgtgccctc	acaccagtgg	9660
tactggaac	cttgaacact	tggctgtcgc	ccggatctgc	agatgtcaag	aacttctgga	9720
agtcaaatta	ctgcccactt	ctccagggca	gatacctgtg	aacatccaaa	accatgccac	9780

agaacccctgc	ctgggggtcta	caacacatat	ggactgtgag	caccaagtcc	agccctgaat	9840
ctgtgaccac	ctgccaaagat	gccccctaact	gggatccacc	aatcactgca	catggcagggc	9900
agcgaggctt	ggagggtgctt	cgccacaagg	cagccccaat	ttgctgggag	tttcttggca	9960
cctggtagtg	gtgaggagcc	ttgggaccct	caggattact	ccccttaagc	atagtgggga	10020
cccttctgca	tccccagcag	gtgccccgct	cttcagagcc	tctctctctg	aggtttacc	10080
agacccctgc	accaatgaga	ccatgctgaa	gcctcagaga	gagagatgga	gctttgacca	10140
ggagccgctc	ttccttgagg	gccagggcag	ggaaagcagg	aggcagcacc	aggagtggga	10200
acaccagtgt	ctaagcccct	gatgagaaca	gggtggtctc	tcccatatgc	ccataccagg	10260
cctgtgaaca	gaatcctcct	tctgcagtga	caatgtctga	gaggacgaca	tgtttccag	10320
cctaacgtgc	agccatgccc	atctacccac	tgctactgca	aggacagcac	caaccaggga	10380
gctgggaagc	tgggagaaga	catggaatac	ccatggcttc	tcacctcct	ccagtccagt	10440
gggcaccatt	tatgcctagg	acaccacct	gccggcccca	ggctcttaag	agttagggtca	10500
cctaggtgcc	tctgggaggc	cgaggcagga	gaattgcttg	aaccggggag	gcagaggttg	10560
cagtgcagccg	agatcacacc	actgcactcc	agcctgggtg	acagaatgag	actctgtctc	10620
aaaaaaaaaag	agaaagatag	catcagtgcc	taccaagggc	taggggcagg	ggaaggtgga	10680
gagttaatga	ttaatagtag	gaagtctcta	tgtagatga	tgaaaatggt	ctggaaaaaa	10740
aaatatagtg	gtgaggatgt	agaatatgtg	gaataataat	aacggcattt	aattgtacac	10800
ttaacatgat	taatgtggca	tattttatct	tatgtatttg	actacatcca	agaaacactg	10860
ggagagggaa	agcccaccat	gtaaaataca	cccacccta	tcagatagtc	ctcattgtac	10920
ccaggtacag	gcccctcatg	acctgcacag	gaataactaa	ggattttaagg	acatgagggt	10980
tcccagccaa	ctgcagggtgc	acaacataaa	tgtatctgca	aacagactga	gagtaaagct	11040
gggggcacaa	acctcagcac	tgccaggaca	cacacccttc	tcgtggattc	tgactttatc	11100
tgacccggcc	cactgtccag	atcttgttgt	gggattggga	caagggagggt	cataaagcct	11160
gtccccaggg	cactctgtgt	gagcacacga	gacctcccca	ccccccacc	gttaggtctc	11220
cacacataga	tctgaccatt	aggcattgtg	aggaggactc	tagcgcgggc	tcagggatca	11280
caccagagaa	tcaggtagag	agaggaagac	gggtctcgag	gagctgatgg	atgacacaga	11340
gcagggttcc	tgcatgccac	aggtccagct	cacctgggtg	taggtgcccc	atccccctga	11400
tccaggcatc	cctgacacag	ctccctcccg	gagcctcctc	ccaggtgaca	catcagggtc	11460
cctcactcaa	gctgtccaga	gagggcagca	ccttgagacg	cgccaccccc	acttcactct	11520
tcctccctca	cagggctcag	ggctcagggc	tcaagtctca	gaacaaatgg	cagaggccag	11580
tgagcccaga	gatggtgaca	gggcaatgat	ccaggggcag	ctgcctgaaa	cgggagcagg	11640
tgaagccaca	gatgggagaa	gatggttcag	gaagaaaaat	ccaggaatgg	gcaggagagg	11700
agaggaggac	acaggctctg	tggggctgca	gccaggatg	ggactaagtg	tgaagacatc	11760
tcagcagggtg	aggccaggtc	ccatgaacag	agaagcagct	cccacctccc	ctgatgcacg	11820
gacacacaga	gtgtgtgggtg	ctgtgcccc	agagtcgggc	tctcctgttc	tggtccccag	11880
ggagtggaaa	gtgaggttga	cttgtccctg	ctcctctctg	ctaccccaac	attcaccttc	11940
tcctcatgcc	cctctctctc	aaatatgatt	tggatctatg	tccccgcca	aatctcatgt	12000
caaattgtaa	accccaatgt	tggaggtggg	gccttgtgag	aagtgtattg	ataatgcggg	12060
tggattttct	gctttgatgc	tgtttctgtg	atagagatct	cacatgatct	ggttgtttaa	12120
aagtgtgtag	cacctctccc	ctctctctct	ctctctctta	ctcatgctct	gccatgtaag	12180
acgttctctg	ttccccctca	ccgtccagaa	tgattgtaag	ttttctgagg	cctccccagg	12240
agcagaagcc	actatgcttc	ctgtacaact	gcagaatgat	gagcgaatta	aacctctttt	12300
ctttataaat	taccagttct	caggatattc	tttatagcaa	tgcgaggaca	gactaataca	12360
atcttctact	cccagatccc	cgcacacgct	tagccccaga	catcactgcc	cctgggagca	12420
tgacacagcg	agcctcctgc	cgacaaaagc	aaagtcacaa	aaggtgacaa	aaatctgcat	12480
ttggggacat	ctgattgtga	aagagggagg	acagtacact	tgtagccaca	gagactgggg	12540
ctcaccgagc	tgaaacctgg	tagcactttg	gcataacatg	tgcatgaccc	gtgttcaatg	12600
tctagagatc	agtgttgagt	aaaacagcct	ggtctggggc	cgctgctgtc	cccacttccc	12660
tcctgtccac	cagagggcgg	cagagttcct	cccacctggg	agcctcccca	ggggtgctgt	12720
acctccctca	gccggggcca	cagcccagca	gggtccaccc	tcacctgggt	cacctcggcc	12780
cacgtcctcc	tgcctcctcg	agctcctcac	acggactctg	tcagctcctc	cctgcagcct	12840
atcgcccgcc	cacctgaggc	ttgtcgcccg	cccacttgag	gcctgtcggc	tgccctctgc	12900
aggcagctcc	tgtcccctac	acccctcct	tccccgggct	cagctgaaag	ggcgtctccc	12960
agggcagctc	cctgtgatct	ccaggacagc	tcagtctctc	acaggctccg	acgcccccta	13020
tgtgtgcacc	tcacagccct	gtcattacca	taaactcctc	agtcccatga	agttcactga	13080
gcgcctgtct	cccggttaca	ggaaaactct	gtgacagggg	ccacgtctgt	cctgtctctc	13140
gtggaatccc	agggcccagc	ccagtgcctg	acacggaaca	gatgctccat	aaatactggt	13200

taaagtgtgtg	ggagatctct	aaaaagaagc	atatcacctc	cgtgtggccc	ccagcagtca	13260
gagtctgttc	catgtggaca	caggggcact	ggcaccagca	tgggaggagg	ccagcaagtg	13320
cccgcggctg	ccccaggaat	gaggcctcaa	ccccagagc	ttcagaaggg	aggacagagg	13380
cctgcaggga	atagatcctc	cggcctgacc	ctgcagccta	atccagagtt	caggggtcagc	13440
tcacaccacg	tcgaccctgg	tcagcatccc	tagggcagtt	ccagacaagg	ccggagggtct	13500
cctcttgccc	tccagggggt	gacattgcac	acagacatca	ctcaggaaac	ggattcccct	13560
ggacaggaac	ctggctttgc	taaggaagtg	gaggtggagc	ctggtttcca	tcccttgctc	13620
caacagaccc	ttctgatctc	tcccacatac	ctgctctgtt	cctttctggg	tcctatgagg	13680
accctgttct	gccaggggtc	cctgtgcaac	tccagactcc	ctcctggtac	caccatgggg	13740
aaggtggggt	gatcacagga	cagtcagcct	cgcagagaca	gagaccaccc	aggactgtca	13800
gggagaacat	ggacaggccc	tgagccgcag	ctcagccaac	agacacggag	agggagggtc	13860
cccctggagc	cttcccgaag	gacagcagag	cccagagtca	cccacctccc	tccaccacag	13920
tcctctcttt	ccaggacaca	caagacacct	ccccctccac	atgcaggatc	tggggactcc	13980
tgagacctct	gggcctgggt	ctccatccct	gggtcagtgg	cggggttggg	ggtactggag	14040
acagagggtc	ggtccctccc	cagccaccac	ccagtgagcc	tttttctagc	ccccagagcc	14100
acctctgtca	ccttctgtgt	gggcatcctc	ccaccttccc	agagccctgg	agagcatggg	14160
gagaccgggg	accctgctgg	gtttctctgt	cacaaaggaa	aataatcccc	ctggtgtgac	14220
agacccaagg	acagaacaca	gcagagggtca	gcactgggga	agacagggtg	tcctcccagg	14280
ggatgggggt	ccatccacct	tgccgaaaag	atattgtctga	ggaactgaaa	atagaaggga	14340
aaaaagagga	gggacaaaag	aggcagaaat	gagaggggag	gggacagagg	acacctgaat	14400
aaagaccaca	cccatgaccc	acgtgatgct	gagaagtact	cctgccctag	gaagagactc	14460
agggcagagg	gaggaaggac	agcagaccag	acagtcacag	cagccttgac	aaaacgttcc	14520
tggaactcaa	gctcttctcc	acagaggagg	acagagcaga	cagcagagac	catggagtct	14580
ccctcggccc	ctccccacag	atggtgcatc	ccctggcaga	ggctcctgct	cacaggtgaa	14640
gggaggacaa	cctgggagag	ggtgggagga	gggagctggg	gtctcctggg	taggacaggg	14700
ctgtgagacg	gacagagggc	tcctgttgga	gcctgaatag	ggaagaggac	atcagagagg	14760
gacaggagtc	acaccagaaa	aatcaaatg	aactgggaatt	ggaaaggggc	aggaaaacct	14820
caagagttct	attttccctag	ttaattgtca	ctggccacta	cgttttttaa	aatcataata	14880
actgcacag	atgacacttt	aaataaaaaac	ataaccaggg	catgaaacac	tgtcctcatc	14940
cgcctaccgc	ggacattgga	aaataagccc	caggctgtgg	agggccctgg	gaacctcat	15000
gaactcatcc	acaggaatct	gcagcctgtc	ccaggcactg	gggtgcaacc	aagatc	15056

<210> 15

<211> 858

<212> DNA

<213> Artificial Sequence

<220>

<223> Mucin-TRE

<400> 15

cgagcggccc	ctcagcttcg	gcgccagcc	ccgcaaggct	cccggtgacc	actagagggc	60
gggaggagct	cctggccagt	ggtggagagt	ggcaaggaa	gaccctaggg	ttcatcggag	120
cccagggttta	ctcccttaag	tggaaatttc	ttccccact	cctccttggc	tttctccaag	180
gagggaaacc	aggctgctgg	aaagtccggc	tggggcgggg	actgtgggtt	caggggagaa	240
cggggtgtgg	aacgggacag	ggagcgggtta	gaaggggtgg	gctattccgg	gaagtgggtg	300
ggggaggggag	cccaaaacta	gcacctagtc	cactcattat	ccagccctct	tatttctcgg	360
ccgctctgct	tcagtggacc	cggggagggg	ggggaagtgg	agtgggagac	ctaggggtgg	420
gcttcccgac	cttgcgtgtac	aggacctcga	cctagctggc	tttggttccc	atccccacgt	480
tagttgtttg	cctgaggcta	aaactagagc	ccaggggccc	caagttccag	actgccccct	540
ccccctcccc	cggagccagg	gagtgggttg	tgaaaggggg	aggccagctg	gagaacaaac	600
gggtagtcag	ggggttgagc	gattagagcc	cttgtacct	accaggaat	ggttggggag	660
gaggaggaag	aggtaggagg	taggggaggg	ggcggggttt	tgtcacctgt	cacctgctcg	720
ctgtgcctag	ggcgggcggg	cggggagtgg	ggggaccggg	ataaagcggg	aggcgctgt	780
gcccgtcca	cctctcaagc	agccagcgcc	tgctgaatc	tgttctgccc	cctccccacc	840
catttcacca	ccaccatg					858

<210> 16
 <211> 5224
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> AlphaFP-TRE

<400> 16
 gaattccttag aaatatgggg gtaggggtgg tgggtggaat tctgttttca ccccataggt 60
 gagataagca ttgggtttaa tgtgctttca cacacacatc acatttcata agaattaagg 120
 aacagactat gggctggagg actttgagga tgtctgtctc ataacacttg ggttgtatct 180
 gttctatggg gcttgtttta agcttggcaa ctgcaacag ggttcactga ctttctcccc 240
 aagcccaagg tactgtcctc ttttcatatc tgttttgggg cctctggggc ttgaatatct 300
 gagaaaatat aaacatttca ataatgttct gtgggtgagat gagtatgaga gatgtgtcat 360
 tcatattgtat caatgaatga atgaggacaa ttagtgtata aatccttagt acaacaatct 420
 gagggtaggg gtggtactat tcaatttcta tttataaaga tacttatttc tatttattta 480
 tgcttgtgac aaatgttttg ttcgggacca caggaatcac aaagatgagt ctttgaattt 540
 aagaagttaa tgggtccagga ataattacat agcttacaaa tgactatgat ataccatcaa 600
 acaagaggtt ccatgagaaa ataactctgaa aggtttaata agttgtcaaa ggtgagaggg 660
 ctcttctcta gctagagact aatcagaaat acattcaggg ataattattt gaatagacct 720
 taagggttgg gtacattttg ttcaagcatt gatggagaag gagagtgaat atttgaaaac 780
 attttcaact aaccaaccac ccaatccaac aaacaaaaaa tgaaaagaat ctcaagaaac 840
 gtgagataag agaaggaatt ttctcacaac ccacacgtat agctcaactg ctctgaagaa 900
 gtatatatct aatatttaac actaacatca tgctaataat gataataatt actgtcattt 960
 tttaatgtct ataagtacca ggcattttaga agatattatt ccatttatat atcaaaaataa 1020
 acttgagggg atagatcatt ttcattgatat atgagaaaaa ttaaaaacag attgaattat 1080
 ttgcctgtca tacagctaatt aattgacct aagacaatta gatttaaatt agttttgaat 1140
 ctttctaata ccaaagttca gtttactgtt ccatgttgct tctgagtggc ttcacagact 1200
 tatgaaaaag taaacggaat cagaattaca tcaatgcaaa agcattgctg tgaactctgt 1260
 acttaggact aaactttgag caataacaca catagattga ggattgtttg ctggttagcat 1320
 acaaaactcg gttcaaagct cctctttatt gcttgtcttg gaaaatttgc tgttcttcat 1380
 ggtttctctt ttactgcta totatttttc tcaaccactc acatggctac aataactgtc 1440
 tgcaagctta tgattcccaa atatctatct ctagcctcaa tcttgttcca gaagataaaa 1500
 agtagtatcc aaatgcacat caacgtctcc acttggaggg cttaaagacg tttcaacata 1560
 caaacgggg agttttgect ggaatgtttc ctaaaatgtg tcctgtagca cataggggtc 1620
 tcttgttcct taaaatctaa ttacttttag ccagtgctc atcccaccta tggggagatg 1680
 agagtgaaaa gggagcctga ttaataatta cactaagtca ctaaaatata ccaaaaactga acatgtactt 1800
 gtttgggtaa actggtcact ttatcttaaa ataccactca gctttatcca ggccacttat 1860
 agttactaag tctttgactt tatctcattc tgggtctcct atcatagtct tatccccttt 1920
 ttgacagtat tattgcgaaa acttcctaac tgggtctcct atcatagtct cttttgttgt 1980
 tgaaacaaaa gagacagttt caaaatacaa atatgatttt tattagctcc cttttgttgt 2040
 ctataatagt ccaggaagg gttataaact ccatttaaaa agtctttgag atgtggccct 2100
 tgccaaactt gccaggaatt cccaatatct agtattttct actattaaac tttgtgctc 2160
 ttcaaaaactg catttttctc cattccctaa gtgtgcattg ttttccctta ccggttggtt 2220
 tttccaccac cttttacatt ttectggaac actataccct ccctcttcat ttggcccacc 2280
 tctaattttc tttcagatct ccatgaagat gttacttctt ccaggaagcc ttatctgacc 2340
 cctccaaaaga tgtcatgagt tcctcttttc attctactaa tcacagcatc catcacacca 2400
 tgttgtgatt actgatacta ttgtctgttt ctctgattag gcagtaagct caacaagagc 2460
 tacatgggtg ctgtctcttg ttgctgatta ttcccatcca aaaacagtgc ctggaatgca 2520
 gacttaacat tttattgaat gaataaataa aaccccatct atcgagtgtc actttgtgca 2580
 agacccggtt ctgaggcatt tatattttat gatttattta attctcattt aaccatgaag 2640
 gaggtactat cactatcctt attttatagt tgataaagat aaagcccaga gaaatgaatt 2700
 aactcaccca aagtcattgt gctaagtgc agggcaaaaa ttcaaaccag tcccccaact 2760
 ttacgtgatt aatactgtgc tatactgcct ctctgatcat atggcatgga atgcagacat 2820
 ctgctccgta aggcagaata tggaaggaga ttggaggatg acacaaaacc agcataatat 2880
 cagaggaaaa gtccaaacag gacctgaact gatagaaaag ttgttactcc tgggtgtagtc

gcatcgacat	cttgatgaac	tggtggctga	cacaacatac	attggcttga	tgtgtacata	2940
ttattttag	ttgtgtgtgt	atTTTTtat	atataattgt	aatattgaaa	tagtcataat	3000
ttactaaagg	cctaccattt	gccaggcatt	tttacatttg	tccctcttaa	tcttttgatg	3060
agatgatcag	attggattac	ttggccttga	agatgatata	tctacatcta	tatctatatc	3120
tatatctata	tctatatcta	tatctatatc	tatatctata	tatgtatatc	agaaaagctg	3180
aaatatgttt	tgtaaagtta	taaagatttc	agactttata	gaatctggga	tttgccaaat	3240
gtaacccctt	tctctacatt	aaacccatgt	tggaacaaat	acatttatta	ttcattcatc	3300
aaatgttgct	gagtcctggc	tatgaaccag	acactgtgaa	agcctttggg	atattttgcc	3360
catgcttggg	caagcttata	tagtttgctt	cataaaaactc	tatttcagtt	cttcataact	3420
aatacttcat	gactattgct	tttcaggat	tccttcataa	caaatacttt	ggctttcata	3480
tatttgagta	aagtccccct	tgaggaagag	tagaagaact	gcactttgta	aatactatcc	3540
tggaatccaa	acggatagac	aaggatgggtg	ctacctcttt	ctggagagta	cgtgagcaag	3600
gcctgttttg	ttaacatgtt	ccttaggaga	caaaacttag	gagagacacg	catagcagaa	3660
aatggacaaa	aactaacaaa	tgaatgggaa	ttgtacttga	ttagcattga	agaccttggt	3720
tatactatga	taaatgtttg	tatttgctgg	aagtgtactt	gacggtaaac	cctttttggt	3780
taaatgtgtg	ccctagtagc	ttgcagtatg	atctattttt	taagtactgt	acttagctta	3840
tttaaaaatt	ttatgtttta	aattgcatag	tgctctttca	ttgaagaagt	tttgagagag	3900
agatagaatt	aaattcactt	atcttaccat	ctagagaaac	ccaatgttaa	aactttgttg	3960
tccattattt	ctgtctttta	ttcaacattt	tttttagagg	gtgggaggaa	tacagaggag	4020
gtacaatgat	acacaaatga	gagcactctc	catgtattgt	tttgtcctgt	ttttcagtta	4080
acaatatatt	atgagcatat	ttccatttca	ttaaatatc	ttccacaaag	ttattttgat	4140
ggctgtatat	caccctactt	tatgaatgta	ccatattaat	ttatttcctg	gtgtgggtta	4200
tttgatttta	taatcttacc	tttagaataa	tgaaacacct	gtgaagcttt	agaaaatact	4260
ggtgcctggg	tctcaactcc	acagattctg	atttaactgg	tctgggttac	agactaggca	4320
ttgggaattc	aaaaagttcc	cccagtgatt	ctaagtgtga	gccaagatcg	ggaacccttg	4380
tagacagggg	tgataggagg	tgagccactc	ttagcatcca	tcatttagta	ttaacatcat	4440
catcttgagt	tgctaagtga	atgatgcacc	tgaccactt	tataaagaca	catgtgcaaa	4500
taaaattatt	ataggacttg	gtttattagg	gcttgtgctc	taagttttct	atgttaagcc	4560
atacatcgca	tactaaatac	tttaaaatgt	accttattga	catacatatt	aagtgaaaag	4620
tgtttctgag	ctaaacaatg	acagcataat	tatcaagcaa	tgataatttg	aaatgaattt	4680
attattctgc	aacttagggg	caagtcatct	ctctgaattt	tttgtacttt	gagagtattt	4740
gttatatttg	caagatgaag	agtctgaatt	ggtcagacaa	tgtcttgtgt	gcctggcata	4800
tgataggcat	ttaatagttt	taaagaatta	atgtatttag	atgaattgca	taccaaactc	4860
gctgtctttt	ctttatggct	tcattaactt	aatTTGagag	aaattaatta	ttctgcaact	4920
tagggacaag	tcattgtctt	gaatattctg	tagtttgagg	agaatatttg	ttatatttgc	4980
aaaataaaa	aagtttgcaa	gttttttttt	tctgccccaa	agagctctgt	gtccttgaac	5040
ataaaataca	aataaccgct	atgctgttaa	ttattggcaa	atgtcccatt	ttcaacctaa	5100
ggaaatacca	taaagtaaca	gatataccaa	caaaaggtta	ctagttaaca	ggcattgcct	5160
gaaaagagta	taaaagaatt	tcagcatgat	tttccatatt	gtgcttccac	cactgccaat	5220
aaca						5224

<210> 17

<211> 307

<212> DNA

<213> Artificial Sequence

<220>

<223> Nucleotide sequence for ADP

<400> 17

gatgaccggc	tcaaccatcg	cgccccacaac	ggactatcgc	aacaccactg	ctaccgggact	60
aacatctgcc	ctaaatttac	cccaagttca	tgctttgtc	aatgactggg	cgagcttggg	120
catgtggtgg	ttttccatag	cgcttatgtt	tgtttgctt	attattatgt	ggcttatttg	180
ttgcctaaag	cgcagacgcg	ccagaccccc	catctatagg	cctatcattg	tgctcaaccc	240
acacaatgaa	aaaattcata	gattggacgg	tctgaaacca	tgttctcttc	ttttacagta	300
tgattaa						307

<210> 18
 <211> 101
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Amino acid sequence for ADP

<400> 18
 Met Thr Gly Ser Thr Ile Ala Pro Thr Thr Asp Tyr Arg Asn Thr Thr
 1 5 10 15
 Ala Thr Gly Leu Thr Ser Ala Leu Asn Leu Pro Gln Val His Ala Phe
 20 25 30
 Val Asn Asp Trp Ala Ser Leu Asp Met Trp Trp Phe Ser Ile Ala Leu
 35 40 45
 Met Phe Val Cys Leu Ile Ile Met Trp Leu Ile Cys Cys Leu Lys Arg
 50 55 60
 Arg Arg Ala Arg Pro Pro Ile Tyr Arg Pro Ile Ile Val Leu Asn Pro
 65 70 75 80
 His Asn Glu Lys Ile His Arg Leu Asp Gly Leu Lys Pro Cys Ser Leu
 85 90 95
 Leu Leu Gln Tyr Asp
 100

<210> 19
 <211> 28
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> PCR EMCV IRES (PCR primer 96.74.2)

<400> 19
 gacgtcgact aattccggtt attttcca

28

<210> 20
 <211> 28
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> PCR EMCV IRES (PCR primer 96.74.1)

<400> 20
 gacgtcgaca tcgtgttttt caaaggaa

28

<210> 21
 <211> 25
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Ad5 sequence to 1314 to 1338 (PCR primer 96.74.3)

<400> 21
 cctgagacgc ccgacatcac ctgtg

25

<210> 22
 <211> 30
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Antisense of Ad5 sequence 1572 to 1586 (PCR primer 96.74.6)

 <400> 22
 gtcgaccatt cagcaaacaaggcgtaac 30

 <210> 23
 <211> 30
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Ad5 sequence 1714 to 1728 (PCR primer 96.74.4)

 <400> 23
 tgctgaatgg tcgacatgga ggcttgggag 30

 <210> 24
 <211> 26
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Antisense of Ad5 sequence 2070 to 2094 (PCR primer 96.74.5)

 <400> 24
 cacaaaccgc tctccacaga tgcattg 26

 <210> 25
 <211> 29
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Human UPII (PCR primer 127.2.1)

 <400> 25
 aggaccggtc actatagggc acgcgtggt 29

 <210> 26
 <211> 31
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Human UPII (PCR primer 127.2.2)

 <400> 26
 aggaccggtc ggatgctggg ctgggaggtg g 31

 <210> 27
 <211> 29

<212> DNA
 <213> Artificial Sequence

 <220>
 <223> PCR primer 100.113.1

 <400> 27
 aggggtaccc actatagggc acgcgtggt 29

 <210> 28
 <211> 32
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> PCR primer 100.113.2

 <400> 28
 acccaagctt gggatgctgg gctgggaggt gg 32

 <210> 29
 <211> 30
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> PCR primer 127.50.1

 <400> 29
 aggaccggtc aggcttcacc ccagacccac 30

 <210> 30
 <211> 24
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> PCR primer 31.166.1

 <400> 30
 tgcgccggtg tacacaggaa gtga 24

 <210> 31
 <211> 21
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> PCR primer 32.32.1

 <400> 31
 gagtttgtgc catcgggtcta c 21

 <210> 32
 <211> 21
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> PCR primer 32.32.2

 <400> 32
 aatcaatcct tagtcctcct g 21

 <210> 33
 <211> 25
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> PCR primer 51.176

 <400> 33
 gcagaaaaat cttccaaaca ctccc 25

 <210> 34
 <211> 27
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> PCR primer 99.120.1

 <400> 34
 acgtacaccg gtcggttacat aacttac 27

 <210> 35
 <211> 26
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> PCR primer 99.120.2

 <400> 35
 ctagcaaccg gtcggttcac taaacg 26